Remarks

1. In a scheduled telephone interview on May 10, 2004, from 11:00-11:53 AM PST, between the applicant and examiner Ms. Lun-Yi Lao and supervisor Mr. Bipin Shalwala, the applicant described how the present invention was a portable and self-contained, apparel imaging system with a user interface, comprising one or more apparel segments "made mostly," or "made entirely" out of flexible pixelated material (accept for electrical connectors, seams and the like). It was agreed by all parties that a modification to the independent claim (claim 1) would be acceptable and would place the application in a condition for allowance, if narrowed by the words "made entirely."

2. To place the application in a condition for allowance, independent claims 1 and 33 both incorporate the phrase "made entirely." A complete listing of the claims is separately attached (pages numbered 1-6) entitled "CLAIM AMENDMENTS"

3. The narrower, currently amended claim 1 and new claim 33 differentiate the present invention over the relied upon prior art (Albert et al, 6,252,564) wherein the latter specifically proposes an electrophoretic pixelated material be "incorporated into" existing "articles of clothing." Albert et al provide a single illustration of a small round patch of the electrophoretic display material (about 2"-3" in diameter) being "incorporated into" a small area of an existing jacket. The Albert et al specification only briefly explains their 'incorporation' of electrophoretic material 'into' existing clothing, the following is an example of their scant descriptions:

> "A wearable display includes an article of clothing including an electrically addressable display incorporated into the wearable item..." Albert et al 6,252,564

4.) Thus, in the Albert et al invention, an "article of clothing" must first exist as a prerequisite in order to receive a subsequent 'incorporation' of their specific electrophoretic material. In contrast, the present invention (09/929,615 application) does not first require a pre-existent article of clothing into which a specific flexible pixelated material is then incorporated. Rather, its apparel, or its apparel segments, are "made mostly" or "made entirely" out of any one or more in a variety of flexible pixelated materials shaped for conformance to a three-dimensional portion of a human body (also accommodating connectors, seams and the like, and optionally providing an isolative apparel lining).

5.) See separately attached "Appendix A" (three pages) titled "Chronological Excerpts from the Specification Supporting Apparel, and Apparel Segments, Being Made of Flexible Pixelated Material". Twenty excerpts are provided in Appendix A.

Regarding 'New Matter' Introduced into Independent Claims 29 and 30

6.) The outstanding action stated that the words "full-speed, full-motion" introduced new matter into independent claims 29 and 30. Independent claims 29 and 30 have been cancelled.

CLAIM AMENDMENTS

Claim 1. (currently amended) A ~~Wearable~~ wearable pixelated apparel display system ~~comprised of~~ comprising:

1. at least one apparel ~~segment~~ made entirely of highly flexible and lightweight pixelated material, said apparel segment(s) having a contiguous imaging surface comprised of a multitude of pixels, wherein
    a. at least one of said ~~pixelated material~~ apparel segment(s) is shaped to conform to a three-dimensional portion of a ~~human~~ body;
    b. said ~~at least one~~ pixelated material is equipped with a communications link to communicate with at least one image-playback / image-control portable apparatus;
2. said image-playback / image-control portable apparatus is equipped to playback~~, control and shape~~ display imagery content which is shaped in conformance with the size and the shape of said ~~at least one pixelated material~~ apparel segment(s);

    c. said portable apparatus comprising:

        i. at least one control circuit,
        ii. at least one intelligent controller,
        iii. at least one electronic power source,
        iv. at least one input/output interface means for ~~to receive~~ receiving and sending ~~digital media content~~ said display imagery content,
        v. at least one ~~digital media content~~ display imagery content playback means,
        vi. a user interface means for a user to communicate with said portable apparatus and to control the playback of at least one source of ~~digital media content~~ display imagery content; and
        vii. intelligent controller software responsive to user input from said user interface means.

            ~~at least one control circuit,~~

            ~~at least one intelligent controller,~~

            ~~at least one electronic power source,~~

~~- at least one input/output interface means to receive and send digital media content,~~

~~- at least one digital media content playback means,~~

~~- a user interface means for a user to communicate with said apparatus and to control the playback of at least one source of digital media content, and~~

~~- intelligent controller software responsive to user input from said user interface means.~~

Claim 2. (currently amended) The wearable pixelated apparel of claim 1 comprised of a plurality of flexible lightweight pixelated material segments wherein at least one portion of a perimeter edge of one of said pixelated material segments is adjoined to at least one portion of a perimeter edge of another of said segments by ~~suitable~~ apparel segment attachment means.

Claim 3. (original) The apparel segment attachment means of claim 2 consisting of at least one heat-sealed joint.

Claim 4. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one sonic-weld.

Claim 5. (cancelled)

Claim 6. (original) The apparel segment attachment means of claim 2 consisting of at least one adhesive joint.

Claim 7. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one hook-and-loop fastener.

Claim 8. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least button that is operative in a button hole.

Claim 9. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one snap.

Claim 10. (original) The apparel segment attachment means of claim 2 consisting of at least one stapled joint.

Claim 11. (original) The apparel segment attachment means of claim 2 consisting of at least one riveted joint.

Claim 12. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one zipper.

Claim 13. (original) The apparel segment attachment means of claim 2 consisting of at least one stapled joint.

Claim 14. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one hook.

Claim 15. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one tongue-in-groove fastener.

Claim 16. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one stitched seam.

Claim 17. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one sewed seam.

Claim 18. (original) The apparel segment attachment means of claim 2 consisting of at least one joint having at least one knotted seams.

Claim 19. (original) The one input/output interface means of claim 1 further comprising at least one port suitable for optical data communication.

Claim 20. (original) The one input/output interface means of claim 1 further comprising at least one port suitable for digital data communication.

Claim 21. (currently amended) The source of ~~digital media~~ display imagery content of claim 1 wherein said source is derived from at least one ~~pre-recorded material~~ playback device and said device electronically communicates with said apparatus.

Claim 22. (original) The content of claim 21 consisting of at least one video game that is responsive to user input from a user interface.

Claim 23. (original) The content of claim 21 consisting of at least one advertisement.

Claim 24. (original) The content of claim 21 consisting of at least one promotional message.

Claim 25. (original) The source of digital media content of claim 1 wherein said source is a live wireless transmission and is wirelessly received by said apparatus.

Claim 26. (currently amended) The visually-dynamic pixelated-image displaying apparel of claim 1 comprised of a plurality of flexible lightweight pixelated material segments wherein at least one portion of one of said pixelated material segments is adjoined to at least one portion of a another of said segments by ~~suitable~~ apparel segment electronic coupling means.

Claim 27. (original) The user interface means of claim 1 wherein said interface is accessible to a user from at least one surface area of said apparel.

Claim 28. (original) The user interface means of claim 1 wherein said interface is substantially housed in a compact enclosure and accessible to a user near at least one surface area of said apparel.

Claim 29. (cancelled)

Claim 30. (cancelled)

Claim 31. (new) The wearable pixelated apparel of claim 1 wherein said apparel further comprises a lining material.

Claim 32 (new) The wearable pixelated apparel of claim 1 comprised of a plurality of flexible lightweight pixelated material segments wherein at least one portion of a perimeter edge of one of said pixelated material segments is adjoined to at least one portion of a perimeter edge of another of said segments by apparel segment attachment means to form an apparel seam in a manner which provides for the contiguous display of said display imagery content across said seam.

Claim 33. (new) A wearable pixelated apparel display system comprising:

1. apparel made entirely of highly flexible and lightweight pixelated material, said apparel having a contiguous imaging surface comprised of a multitude of pixels, wherein
    a. said apparel is shaped to conform to a three-dimensional portion of a body;
    b. said pixelated material is equipped with a communications link to communicate with at least one image-playback / image-control portable apparatus;
2. said image-playback / image-control portable apparatus is equipped to playback display imagery content which is shaped in conformance with the size and the shape of said apparel;
    c. said portable apparatus comprising:
        i. at least one control circuit,
        ii. at least one intelligent controller,
        iii. at least one electronic power source,
        iv. at least one input/output interface means for to receive receiving and sending digital media content said display imagery content,
        v. at least one display imagery content playback means,

vi. a user interface means for a user to communicate with said portable apparatus and to control the playback of at least one source of display imagery content; and

vii. intelligent controller software responsive to user input from said user interface means.

APPENDIX A

Chronological Excerpts from the Specification Supporting Apparel, and Apparel Segments, Being Made of Flexible Pixelated Material

1. "More particularly, *the invention pertains to methods whereby such apparel can be contiguously formed, or formed having apparel edges and/or apparel pattern-segments, that can be physically adjoined to one another or to other apparel components, to provide a contiguous video-imaging surface,* and have electronic coupling to video control and display apparatus *to receive digitally formatted media content that are sized and shaped for display on: one or more receiving apparel segments; or, combination of apparel segments; or, contiguously-formed apparel."* Page 1, lines 15-20.

2. *"As numerous companies begin to provide pixelated materials that are as flexible or as 'foldable' as paper,* and offer the immersive quality of constantly streaming information (or other dynamic imagery such as that seen on the Internet or on television), *the prospect of employing such materials--that will also be lightweight and thermally comfortable when worn as visually dynamic apparel--can practicably be achieved."* Page 3, lines 21-25

3. *"It is the purpose of the present invention to provide methods of making lightweight and wearable apparel out of thermally comfortable, highly flexible pixelated-material,* and in so doing, to provide visually-dynamic clothing and goods that can be erased, rewritten and 'upgraded' in appearance either in real-time or by pre-programming their appearance ahead of time, and preferably include the capability *to image digital video onto the apparel and/or onto shapes typical of apparel segments and/or apparel components."* Page 3, lines 25-31

4. *By contrast, the present invention discloses practicable methods for adjoining any one or more of a variety of flexible pixelated material shapes and/or apparel pattern segments and electronically couples such shapes and/or segments to receive displayable content for pixelated materials,* and overcomes the limitations described above. Page 4, lines 14-17

5. By contrast, *the present invention, shows* simply and clearly, *how video-imaging apparel is comprised almost entirely of a lightweight material that is designed to be highly flexible, and durable enough to fabricate apparel therefrom, particularly apparel having a substantially contiguous video-imaging surface over much, or all, of the surface area of wearable goods--or made of material that can readily be adjoined in imageable segments such that combined segments will collectively provide a substantially contiguous video-imaging surface over the apparel.* Page 6, lines 3-10

6. *The present invention also provides video-imaging display apparatus* including digital video formatting means, the latter of *which, formats digital video content according to the size and shape of each video-imaging apparel, or of segments that are combined to make up such apparel, such that any one or more of a variety of video content sources can be rendered contiguously over the video-imaging display surfaces of such apparel.* Page 6, line 9-13

7. *The system also includes video display formatting apparatus for formatting digital video according to the size and shape of: individual apparel-segments, or combined apparel-segments, or size and shape of contiguously-formed apparel, and an interface for pre-programming, or live switching among a selection of displayable-content that is so formatted.* Page 7, lines 25-29

8. FIG. 1A is a front view of *image-displaying apparel panels*, specifically, *a vest right-front segment and a vest left-front segment* each having electronic coupling means, *and adjoinable edge regions defined by dashed lines.* Page 8, lines 7-9

9. FIG. 1C is a three-dimensional depiction of *the combination of apparel segments represented in Figs 1A and 1B wherein apparel segments have been joined together at adjoining regions to form a vest having a substantially contiguous imageable surface, and are connected by a communication link with video display apparatus.* Page, lines 15-18

10. FIG. 2A is a front view of an *image-displaying apparel panel*, specifically, *a skirt front segment* having electronic coupling means, *and adjoinable edge regions defined by dashed lines.* Page 8, lines 20-21

11. FIG. 2C is a three-dimensional depiction of *the combination of apparel segments represented in Figs. 2A and 2B wherein apparel segments have been joined together at adjoining regions form a skirt having a substantially contiguous imageable surface.* Page 8, lines 26-28

12. *The flexible pixelated material has electronic coupling means with at least one image-playback / image-control apparatus equipped to playback, control and display imagery according to the size and the shape of one or more pixelated material segment making up the displaying apparel.* Page 9, lines 16-19

13. *In Fig.s 1A through 1C and Fig.s 2A through 2C, the apparel is comprised of video-imaging panels made from highly flexible pixelated material 12 e.g. the vest left-front segment 20 and vest right-front segment 22 seen in Fig. 1A, and the vest left-rear segment 16 and vest right-rear segment 18 seen in Fig. 1B.* Each segment has at least one side adjoining edge 24, an upper adjoining edge 26, and at least one pleat adjoining edge 28. The segments are adjoined at adjoining edges as seen in Fig. 1C to form a plurality of seam 30 and a plurality of pleat 32 such that the composition of the apparel segments forms vest 14. *It can be seen in Fig. 1C that when the vest is so formed, that a substantially contiguous video-imaging surface 58 is provided by the apparel.* Page 9 line 29 through Page 10 line 6

14. *Apparel segments are linked to one another by suitable electronic coupling means 50 and receive video signal from video display apparatus 52 via display transmission means 54 such that custom formatted video content (sized and shaped according to one or more video-receiving apparel segment) can be imaged thereon.* For example, coupling means 50 can have a multi-conductor connection means--such as a multi-conductor wire or cable having a quick-release connector--to couple with other coupling means 50 (and connectors) *located on adjacent apparel segments.* The multi-conductor wire can be formed, or otherwise positioned, along a perimeter edge of an *apparel segment.* Page 10, lines 9-16

15. In Fig. 2C *a skirt 36 is seen fabricated from video-imaging apparel segments comprising skirt front segment 40 seen in Fig. 2A and skirt rear segment 38* in Fig. 2B, each segment having a skirt upper edge 42 and skirt lower edge 44. *The apparel segments are adjoined at side adjoining edge(s) 24 as seen at seam 30 of Fig. 2C to form the substantially contiguous video-imaging surface 58.* Page 10, lines 26-30

16. Adjacent to upper edge(s) 42 are electronic coupling means 50 which complete a video signal circuit when the *apparel segments and coupling means are adjoined* as seen if Fig. 2C. Page 11, lines1-2

17. The microcontroller 106 has a electronic transmission link 122--such as the *apparel coupling means 50 described above--which is coupled with one or more highly flexible pixelated material 124 (video-imaging apparel display, i.e. video-imaging segment, or contiguously-formed video-imaging apparel). Page 12, lines 5-8*

18. When microcontroller 106 is so coupled to material 124, it is responsive to a code identification associated with *each video-imaging segment*, or *each contiguously-formed video-imaging apparel*. The apparel code may be entered by a user via user-interface means 64, or pre-programmed for a particular apparel (or apparel combination, or *apparel segment*), or the apparel coupling means 50 described above may additionally include a code such as the type that can be recorded in an EPROM, or other chip. Page 12, lines 8-14

19. In each case, the code is readable by and transmittable via microcontroller 106 to video input control and formatting means 104 which selects (switches) and *provides correctly-formatted video content that fits the size and shape of each apparel segment, or apparel-whole*. Control and *formatting means 104 routes the formatted video content via transmission link 122 to its respective video-imaging apparel segment, or contiguously-formed video-imaging apparel (both being comprised of highly flexible pixelated material 124).* Page 12, lines 14-19

20. Several other adjoining means are possible e.g. using one or more zippers, hooks, buttons and the like, however *the described adjoining means are meant to be examples of appropriate methods to adjoin edges of highly flexible pixelated materials (to itself, to other segments of like material, or to other apparel components)* and are not meant to exhaust all choices or methods available. Page 14, lines 2-6

APPENDIX B

RECORD OF COMMUNICATIONS PERTAINING TO PETITION TO REVIVE

1. Following a Final Rejection, the applicant had two telephone conversations with the examiner Ms. Lun Yi Lao where she indicated that there appeared to be grounds for an allowance of the invention. In the latter telephone conversation (in late March) she stated that a Petition to Revive would have to be filed because the patent was then considered abandoned. The applicant was requesting to schedule a telephone interview but the examiner said she couldn't discuss issues in further detail until a Petition to Revive was filed.
2. A Petition to Revive was then filed on April 5, 2004 and a subsequent telephone interview was scheduled with the examiner and the examiner's supervisor Mr. Bipin Chawalla on May 10, 2004.
3. The telephone interview with the examiner and supervisor that took place on May 10, 2004, concluded with the understanding that an amendment to independent claim 1 would put the application in a condition for allowance. Neither the examiner or supervisor stated at that time that the filing of an RCE would be required.
4. Applicant sent in the amendment to the independent claim and all material required for the Petition to Revive. The materials arrived at the Patent Office on May 13, 2004 (verified by Post Card Receipt and Certified Mail Receipt).
5. Office of Petitions mailed a letter on May 21, 2004 to the applicant stating the Petition to Revive was dismissed because, when asked, the examiner "reaffirmed that the applicant has not submitted a response that prima facie places the application in a condition for allowance."
6. Applicant attempted to reach senior petitions attorney (Office of Petitions) Ms. Nancy Johnson by telephone Friday July 16, 2004 at 11:22 AM PST to inquire about examiner's reaffirming that the Petition did not have a response that "prima facie places the application in a condition for allowance." Ms. Johnson was unavailable and a detailed telephone message was left regarding a Petition reply being sent to the examiner and received by the Patent Office eight days prior to the mailing sent from Ms. Johnson. The applicant requested that the petitions attorney return the telephone call to help clarify the examiner's "reaffirmation.".
7. Applicant telephoned the examiner on Monday July 19, 2004 in an attempt to verify that the agreed upon amendment that "prima facie places the application in a condition for allowance" was received. The examiner stated that the applicant has to now file a Request for Continued Examination ('RCE') because claims are being altered. The applicant stated that he was not informed in his 55 minute telephone interview with the examiner and supervisor that an RCE would be required (and consequently had been waiting for the examiner to see his Petition materials so that the application could be allowed).
8. On July 20, 2004, 8:43 AM PST, applicant telephoned Ms. Johnson's office again in an attempt to clarify the matter. Ms. Johnson returned the telephone call at 10:00 AM PST and it was determined that the applicant would file an RCE including amendments to the claims in view of changes discussed with the examiner and supervisor, and send one copy of the RCE materials with a $385 fee to Ms. Johnson's attention. Ms. Johnson stated that if the materials are sent with a Certificate of Mailing by July 21, 2004, then no extension fees would be required. The applicant also inquired about getting a refund for a $60 over-payment of the Petition to Revive fee ($725 instead of $665). Ms. Johnson said to include a line requesting the refund in the RCE response letter.